LOWER LEY CREEK SUBSITE
PRP NEXUS REPORT
National Plating Company (HMQ Metal Finishing Group)

October 14, 2014

Compiled by:

PALMERTON GROUP
A Division of GZA GeoEnvironmental, Inc.

Executive Summary:

This summary report documents the waste types and waste-in contributions attributable to HMQ National Plating, Inc. (National Plating) to the Lower Ley Creek Subsite, and provides a brief summary of site history and facts pertaining to its liability at the Lower Ley Creek Subsite. The report is a summary of data/evidence collected and produced by others. Data sources for the information presented in this document are summarized in the reference section, and select information supporting the conclusions reached in this report is included in Appendix A.

Site History:

The National Plating facility is located at 1501 Brewerton Road, Syracuse, NY. The site is situated between the New York State Thruway to the North and the entrance to the Town of Salina Landfill to the South. Ley Creek is located approximately 350 feet south of the site (Figure 1).

National Plating has operated under the same name and the same location since the early 1950s. The company was sold in 1987 to another local company, but continued operations without interruption. Operations at the facility include decorative and industrial metal finishing. Processes include: electroplating, buffing, and polishing of aluminum, chromium, copper, gold, nickel silver, stainless steel, tin and zinc (TAMS, 1997 pg. 4).

A 1969 report prepared for Onondaga County reported that National Plating operated four major areas in its plant: Bright Chrome and Nickel Plating; Barrel Plating; anodizing; and Still Plating. A partial list of raw materials used at the time included: acids (chromic, sulfuric, boric, nitric, hydrochloric); metals and metal salts (zinc, brass, nickel, cadmium, tin stannate, copper cyanide, potassium cyanide, nickel chloride, nickel sulfate, silver potassium cyanide); and alkalis (alkaline cleaners, sodium hydroxide, caustic oxide) (Weston, 1969, pg. A-117).

Hazardous Waste Generation:

In the mid-1990s, it was reported that National Plating treated wastewater on site. The process included filtration, clarification and pH neutralization of effluent. Treatment of process wastewater produces metal hydroxide sludge, as well as spent paper filter cartridges. Wastewater treatment sludge contains cadmium, chromium, lead, silver, nickel, zinc, cyanide and copper. Waste disposal records for the sludge were provided back until 1986. No hazardous waste transport/disposal records prior to 1986 are known to exist (TAMS, 1997 pg. 5).

As summarized in the 1997 TAMS Site Summary Report, National Plating disposed of approximately three drums of waste from their pretreatment unit per quarter, which consisted of approximately 80% spent paper filter cartridges and 20% metal hydroxide sludge. The metal composition of the sludge consisted of cadmium (13 mg/kg), chromium (3,500 mg/kg), lead (300 mg/kg), silver (49 mg/kg), nickel (11,000 mg/kg), zinc (4,900 mg/kg), copper (15,000 mg/kg) and cyanide (150 mg/kg) (TAMS, 1997 pg. 6).

National Plating is currently identified as a conditionally exempt small quantity generator (CESQG) by the USEPA (NYD002226918).

Wastewater and Sewer Discharges:

A 1969 Ley Creek Drainage Discharge Report stated that National Plating's primary sources of wastewater at that time was from the rinsing operations where excess chemicals were removed. Other wastewaters resulting from spills, leaks and general cleanup operations were discharged through floor drains to a sump in the middle of the plant. The sump overflow was discharged to the Ley Creek Sewerage System. Effluent flow was not monitored at this plant, but it was noted that practically all water entering the plant would have been discharged as industrial wastewater. Average water influent flow rates were estimated at 93,500 gallons per day (Weston, 1969 pg. A-117). Wastewater analyses indicated relatively high concentrations of cyanides and metals. On a mean basis in 1969, National Plating contributed approximately 18% of the cyanide, 2.5% of the chromium and 7% of the nickel received at the Ley Creek Sewage Treatment Plant. A pH value as low as 2.5 in a 7.5 hour composite sample was observed during sampling event and was in violation of the Onondaga County "Rules and Regulations Governing the Use of Public Sewers" (Weston, 1969 pg. A-118).

A 1975 Industrial Waste Survey prepared for Onondaga County reported that National Plating discharged 14% of the total industry load for cadmium to the Ley Creek STP, 98% of the total mercury load, 2% of the total copper load, 2.5% of the total nickel load, and 6% of the total cyanide load. A 1976 Industrial Waste Survey reported pretreatment exceedences by National Plating of chromium, copper, zinc, cadmium, nickel, hexavalent chromium, and cyanide.

A 1980 Industrial Chemical Survey completed by National Plating reported that the plant discharged wastewater to the Ley Creek sewer system containing the following hazardous substances: cadmium (2.12 mg/L), chromium (10.7 mg/L), hexavalent chromium (10.7 mg/L), copper (3.27 mg/L), cyanide (3.07 mg/L), lead (0.23 mg/L), nickel (3.53 mg/L), and zinc (7.0 mg/L).

National Plating holds an Onondaga County Department of Drainage and Sanitation (OCDDS) Industrial Wastewater Discharge Permit for the release of treated process (electroplating) wastewater to the municipal sanitary system. Self-monitoring reports indicate that 7,000 gallons per day (GPD) was the typical discharge rate for the facility in 1995.

Site Investigations:

National Plating is located adjacent to the entrance of the Town of Salina Landfill on Brewerton Road, north of the Route 11 bridge. Investigations at the adjacent Town of Salina Landfill in 1994, identified that surface soil near National Plating was found to contain, among other contaminants, arsenic,

barium, calcium, chromium, cobalt, iron, lead, magnesium, nickel, vanadium and zinc at elevated concentrations. The contaminants were also found at levels consistent at other locations within the Town of Salina Landfill (TAMS, 1997 pg. 7).

Limited soil sampling was performed along the perimeter of the National Plating property in 1987 by O'Brien & Gere for the owner of National Plating. Select metals (cadmium, chromium, nickel, and zinc) were detected in each of the four samples and cyanide was detected in three of the four samples. PCBs were analyzed for in one of the four samples and were not detected (TAMS, 1997 pg. 7).

As discussed previously, Ley Creek is located approximately 350 feet south of the National Plating. Information regarding stormwater runoff was not provided by National Plating. The site topography and proximity to Ley Creek indicates the potential for stormwater discharge to Ley Creek.

A Preliminary Site Assessment conducted in 1995 for the Town of Salina Landfill sampled groundwater in a previously installed monitoring well located approximately 300 feet northwest of the National Plating Property. Contaminants found in groundwater were similar to those found in the surface samples discussed above, and also consistent with other sample locations in the Town of Salina Landfill. Groundwater flow in this area flows in a south, southwesterly direction towards Ley Creek (TAMS, 1997 pg. 8).

Known Discharges and Violations:

As discussed above, in the 1960s and 1970s, National Plating discharged significant loads of mercury, cadmium, copper, nickel, cyanide, and chromium (total and hexavalent) to the Ley Creek STP. Although a full review of sewage treatment plant records has not yet been completed, it was reported in a 1976 Industrial Waste Survey that National Plating violated pretreatment standards for chromium, copper, zinc, cadmium, nickel, hexavalent chromium, and cyanide.

As part of the self-monitoring required by National Plating's OCDDS permit, wastewater has been sampled annually for cadmium, chromium, copper, cyanide, lead, mercury, nickel, oil and grease, volatile organic compounds, silver and zinc. National Plating received a Notice of violation of OCDDS permit in 1992, citing deficiencies in their self-monitoring report, which was rescinded by OCDDS in 1993. A December 1990 Notice of Violation reported exceedances of copper, total cyanide, and amenable cyanide from November 1990. Further violations were cited in 1989 and 1990 (TAMS, 1997 pg. 12).

As discussed above, cadmium, cyanide, nickel and zinc were detected on National Plating property at concentrations at elevated concentrations. Therefore it is possible that historic National Plating operations or spills on site have contaminated the site. No releases to the environment have been reported by National Plating as part of its CERCLA Section 104(e) response (TAMS, 1997 pg. 15).

A spill of Fuel Oil # 2 was reported to the NYSDEC by National Plating on November 1, 2000. An unknown quantity of fuel oil was spilled to the soil as the result of a tank failure (Spill Number 0008966).

Information regarding quantity or remedial actions was not available for review. The spill was closed on August 5, 2002.

Ley Creek:

Ley Creek has been sampled numerous times in the vicinity of National Plating and the Town of Salina Landfill. A number of metals, including arsenic, cadmium, chromium, lead, nickel, silver, and zinc, were present in the sediments in excess of sediment criterion in virtually all samples. Among the metals that were detected, the maximum detections, and the associated sediment criterion are cadmium (83.7mg/kg; the sediment criterion is 0.6 mg/kg) and chromium (1,767 mg/kg; the sediment criterion is 26.0 mg/kg). The concentrations for chromium in the downgradient samples were significantly higher than upstream concentrations, indicating that the contamination in the landfill or other sources could be contributing to the contamination of the sediments in Ley Creek (Town of Salina Landfill (Proposed Plan, May 2010).

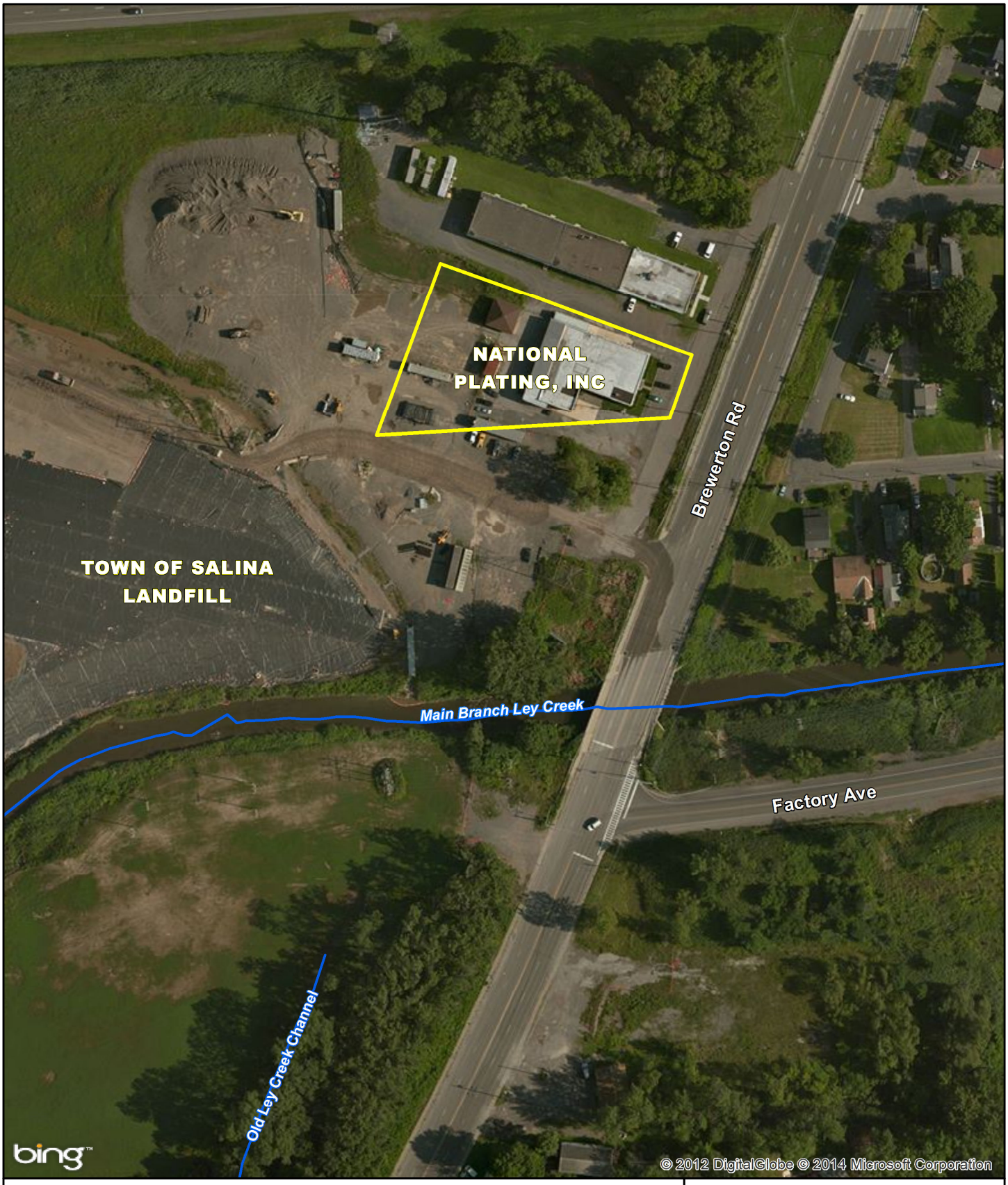
Conclusions:

Hazardous substances for which there have been documented discharges and releases from HMQ National Plating Inc. into the Ley Creek Watershed include, but are not limited to: cadmium, chromium, lead, silver, nickel, zinc, cyanide and copper and fuel oil #2. Based on available evidence, National Plating's nexus to Lower Ley Creek includes: discharges, spills, and releases of the aforementioned hazardous substances from their various facilities into soil, sediment, groundwater and discharges to the Onondaga County Sanitary Sewer System, including the former Ley Creek STP.

Based on the prior reports and studies, National Plating should be given notice by the USEPA of its potential liability at the Lower Ley Creek Subsite and included in any future negotiations between the agency and PRPs.

References:

Information presented in this report has been summarized from the HMQ National Plating Inc. (Sites 251) Site Summary Report (SSR) prepared by TAMS in 1997; Environmental Investigation Reports by Ecology and Environment and O'Brien &Gere; facility information publicly available and select reports and other records obtained from USEPA, Onondaga County and NYSDEC. The information contained in the SSR Report was originally obtained from the CERCLA Section 104(e) responses of National Plating., Inc. as well as supplemental information from the NYSDEC.



Legend:

Site Boundary

River or Stream

N

0 75 150 300

FEET

1:1,800 | 1 INCH = 150 FEET

The property is currently owned by DJH Realty Corp.

Tax Parcels from Onondaga County Water Authority, 2011

Onondaga County, New York

Project Number: 31.0180000.00

NATIONAL PLATING, INC.

SITE MAP

PALMERTON GROUP
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6296 Fly Road, East Syracuse, NY 13057
Environmental Consulting Services

FIGURE
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